

What is claimed is:

1. A method of collecting fresh water, comprising:

pumping sea water having a temperature of approximately 10<sup>0</sup> Centigrade or lower through at least one heat exchanging conduit;

said heat exchanging conduit comprising an outer surface;

allowing the outer surface of the heat exchanging conduit to interact with the atmosphere until water condenses on the outer surface; and

collecting the condensate that accumulates on the outer surface;

wherein the collection of water is facilitated through vibration of the heat exchanging conduit.

2. The method of claim 1, wherein the pumping is carried out using a siphon.

3. The method of claim 1, wherein the sea water is deep ocean water naturally having a temperature of approximately 10<sup>0</sup> Centigrade or lower.

4. The method of claim 1, wherein the seawater has a temperature of under 6<sup>0</sup> Centigrade.

5. The method of claim 1, wherein vibration of the heat exchanging conduit is through a wind induced vibrator.

6. The method of claim 1, wherein the atmosphere is an arid coastal region.

7. The method of claim 1, wherein the outer surface of the heat exchanging conduit includes a coating of a material that prevents hydrogen bonding, thereby facilitating dripping of the condensate.

8. The method of claim 1, further comprising the steps of:

transporting the now warmer sea water leaving a first heat exchanging conduit to a chamber;

allowing solar heating to vaporize the warmer sea water to create a vapor column;

allowing the outer surface of a second heat exchanging conduit to interact with the vapor column; and

collecting the condensate that accumulates on the outer surface of the second heat exchanging conduit.

9. The method of claim 8, wherein the sea water is deep ocean water naturally having a temperature of approximately 10<sup>0</sup> Centigrade or lower.

10. The method of claim 8, wherein the seawater has a temperature of under 6<sup>0</sup> Centigrade.

11. The method of claim 8, wherein the collection of water is facilitated through vibration of the second heat exchanging conduit.

12. The method of claim 8, further comprising the step of creating a vortex in connection with the vapor column to induce a chimney effect.

13. An apparatus for collecting freshwater comprising a first stage comprising:

a siphon, further comprising a piping system, said piping system having a length great enough to reach deep ocean water, said deep ocean water characterized by cold temperature;

a collection tank;

a supporting structure; and

a heat exchanger, further comprising pipes, said pipes further comprising inner and outer surfaces;

wherein cold temperature passes from said inner surfaces to said outer surfaces;

wherein the supporting structure further comprises means for accepting atmospheric vapor in the location of said heat exchanger;

said atmospheric vapor being in contact with said heat exchanger; said contact resulting in condensate on said heat exchanger.

14. The apparatus of claim 13, wherein said collection tank is located below said heat exchanger, wherein said condensate falls from said heat exchanger into said collection tank.

15. The apparatus of claim 13, further comprising a vibrator;

    said vibrator located on said supporting structure, wherein the vibrator is in proximity of said heat exchanger where the vibrator can affect a vibration on said heat exchanger.

16. The apparatus of claim 13, further comprising an outlet pipe, wherein said deep ocean water exits said heat exchanger through said outlet pipe.

17. The apparatus for claim 16, wherein said outlet pipe is connected to a second stage; said second stage comprising;

    a second siphon, further comprising a second piping system with length great enough to reach cold deep ocean water; said cold deep ocean water being characterized by cold temperature;

    a collecting structure, further comprising at least one collecting chamber, comprising at least one second heat exchanger, comprising second pipes, comprising inner and outer surfaces;

    a vortex generator, further comprising a tower, comprising a base, a top, a transfer channel, a plenum chamber, and a rotor;

    a second supporting structure;

    an inlet pipe connected to said outlet pipe; said inlet pipe being in communication with said vortex generator, wherein said deep ocean water is transported by said inlet pipe into said plenum chamber;

    wherein said second siphon elevates the cold deep ocean water to said second heat exchanger, wherein cold temperature passes from said inner surfaces to said outer surfaces;

    said collecting chamber further comprising means for accepting atmospheric vapor in the location of said second heat exchanger;

    wherein said collecting chamber is connected to said tower by said transfer channel;

said vortex generator containing water vapor, wherein said water vapor from the vortex generator is moved by said rotor through said transfer channel;

said atmospheric vapor and water vapor being in contact with said second heat exchanger, said contact resulting in a second condensate on said second heat exchanger.

18. The apparatus of claim 17, wherein said collecting chamber further comprising at least one second collection tank located below said second heat exchanger; wherein said second condensate falls from said second heat exchanger into said second collection tank.

19. The apparatus of claim 17, wherein the second stage is elevated above the first stage.

20. The apparatus of claim 17, further comprising a second vibrator; said second vibrator being located on said second supporting structure, wherein the second vibrator is located in proximity to said second heat exchanger where second vibrator can affect a vibration on said second heat exchanger.

21. The apparatus of claim 17, further comprising a second inlet pipe; wherein the second inlet pipe is connected to a third stage.

22. The apparatus of claim 21, the third stage further comprising:

a stacking tower;

a third siphon; comprising a third piping system, said third piping system in connection with said second inlet pipe, said second inlet pipe connected to said second collecting tank, wherein said second condensate is transported from said second collecting tank to said third piping system;

a third heat exchanger, comprising third pipes, comprising inner and outer surfaces;

a third collecting tank; and

a third supporting structure;

said second condensate being characterized by cold temperature;

said third piping system configured to elevate said second condensate to said third heat

exchanger, wherein cold temperature passes from said inner surfaces to said outer surfaces;  
said stacking tower comprising means for accepting atmospheric vapor in the location of  
the third heat exchanger;  
said atmospheric vapor being in contact with said third heat exchanger, wherein said  
contact resulting in a third condensate on said third heat exchanger.

23. The apparatus of claim 22, wherein said third collecting tank is located below said third heat  
exchanger, wherein said third condensate drips from the third heat exchanger into said third  
collecting tank.

24. The apparatus of claim 22, wherein the third stage is elevated above the second stage.

25. The apparatus of claim 22, further comprising a third vibrator; said third vibrator located on  
said third supporting structure, wherein the third vibrator can affect a vibration on said third heat  
exchanger.

26. A method of producing fresh water comprising;  
pumping sea water having a temperature of approximately  $10^0$  Centigrade or lower  
through at least one heat exchanging conduit;  
said heat exchanging conduit having an outer surface;  
allowing the outer surface of the heat exchanging conduit to interact with atmospheric  
vapor until water condenses on the outer surface forming condensate;  
collecting the condensate that accumulates on the outer surface;  
wherein said condensate is pumped into at least one second heat exchanging conduit;  
said second heat exchanging conduit having a second outer surface;  
allowing said second outer surface of said second heat exchanging conduit to interact with  
atmospheric vapor until water condenses on the second outer surface forming second condensate;  
collecting the second condensate that accumulates on the second outer surface.